FIG. 1

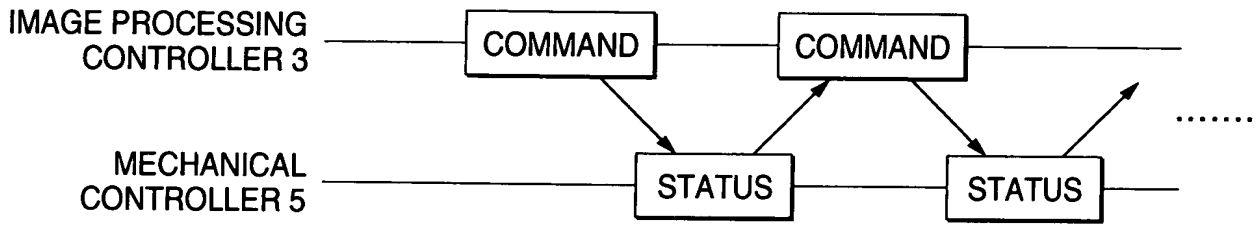
IMAGE PROCESSING CONTROLLER 3
COMMAND
COMMAND
MECHANICAL CONTROLLER 5
STATUS
STATUS

FIG. 2

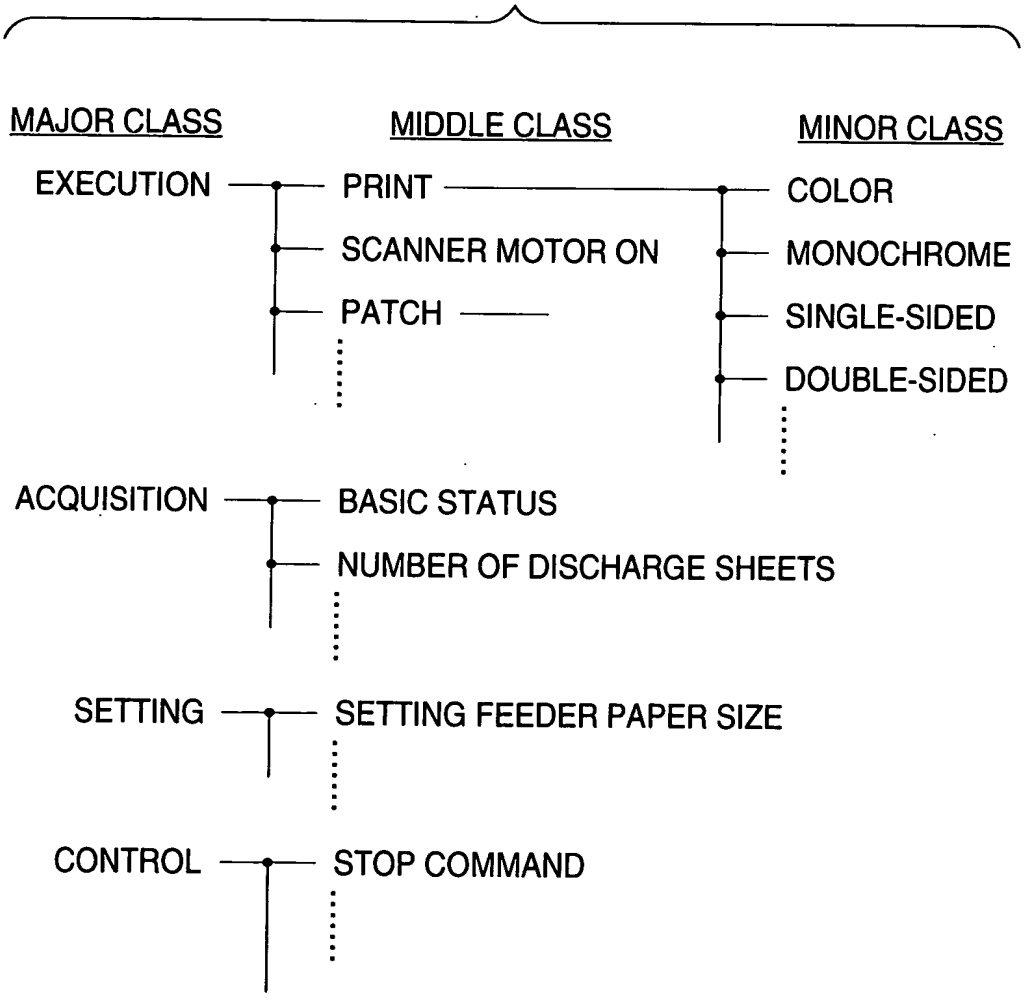
MAJOR CLASS
MIDDLE CLASS
MINOR CLASS
EXECUTION
PRINT
COLOR
MONOCHROME
SINGLE-SIDED
DOUBLE-SIDED
SCANNER MOTOR ON
PATCH
ACQUISITION
BASIC STATUS
NUMBER OF DISCHARGE SHEETS
SETTING
SETTING FEEDER PAPER SIZE
CONTROL
STOP COMMAND

FIG. 3A

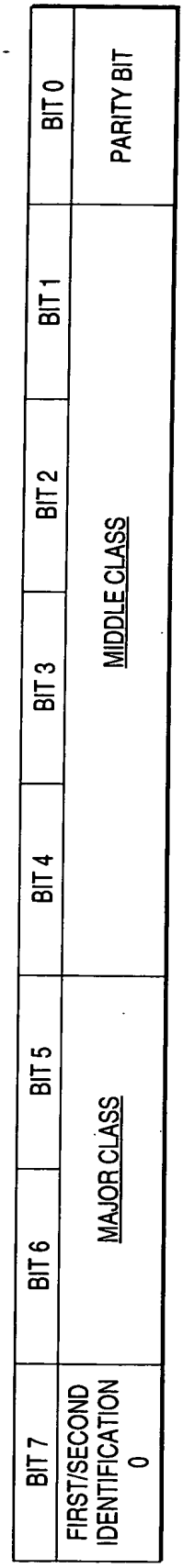
1ST COMMAND
BIT 7
BIT 6
BIT 5
BIT 4
BIT 3
BIT 2
BIT 1
BIT 0
FIRST/SECOND IDENTIFICATION 0
MAJOR CLASS
MIDDLE CLASS
PARITY BIT

FIG. 3B

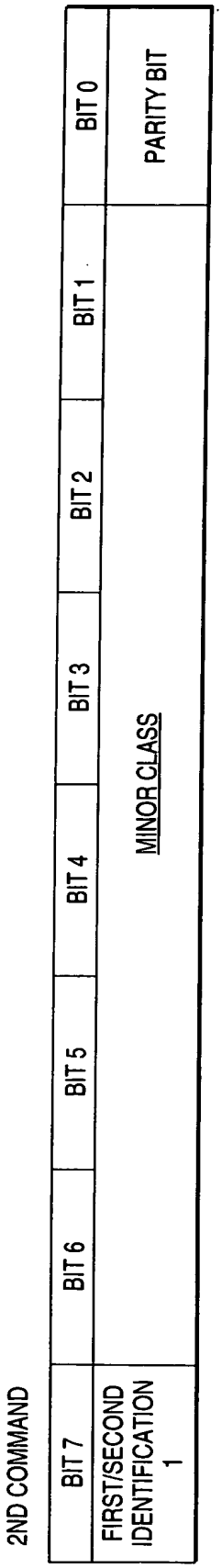
2ND COMMAND
BIT 7
BIT 6
BIT 5
BIT 4
BIT 3
BIT 2
BIT 1
BIT 0
FIRST/SECOND IDENTIFICATION 1
MINOR CLASS
PARITY BIT

FIG. 4A

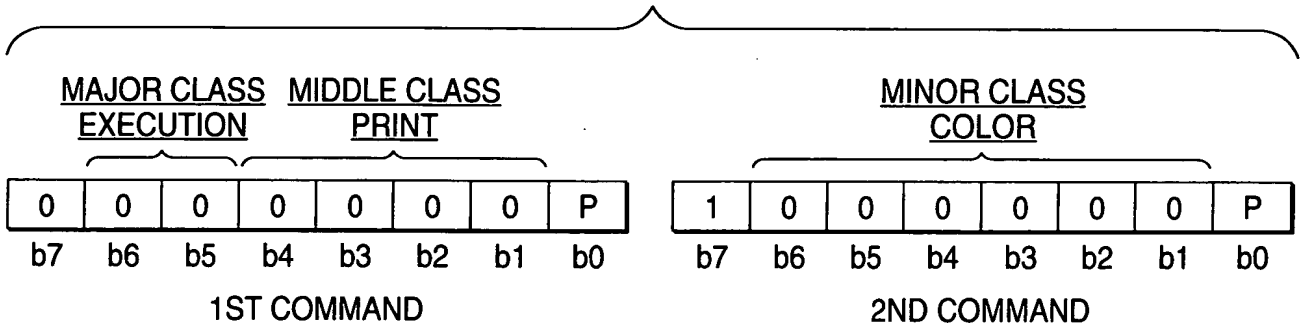

FIG. 4B

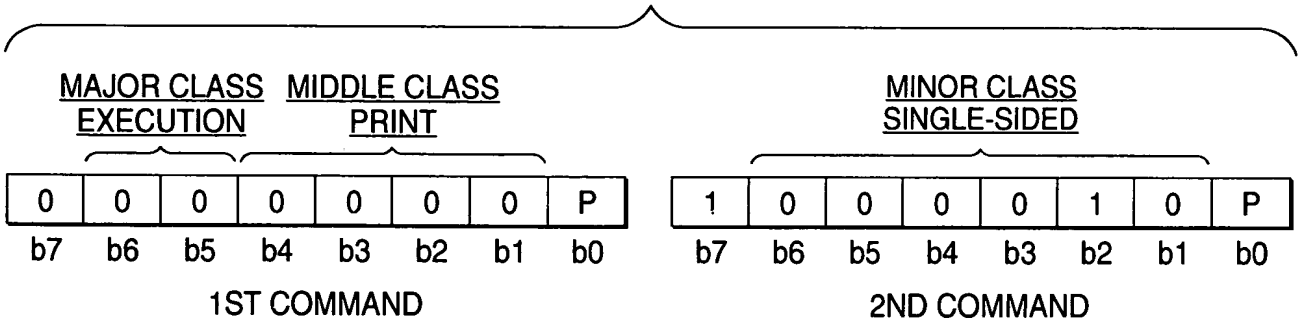

FIG. 4C

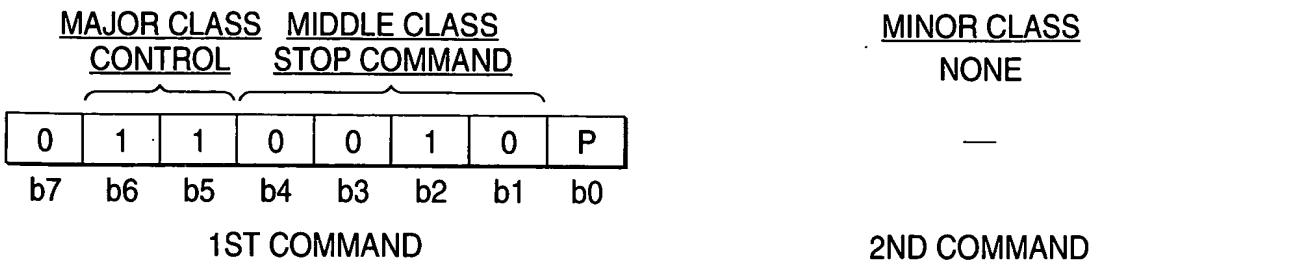

FIG. 5

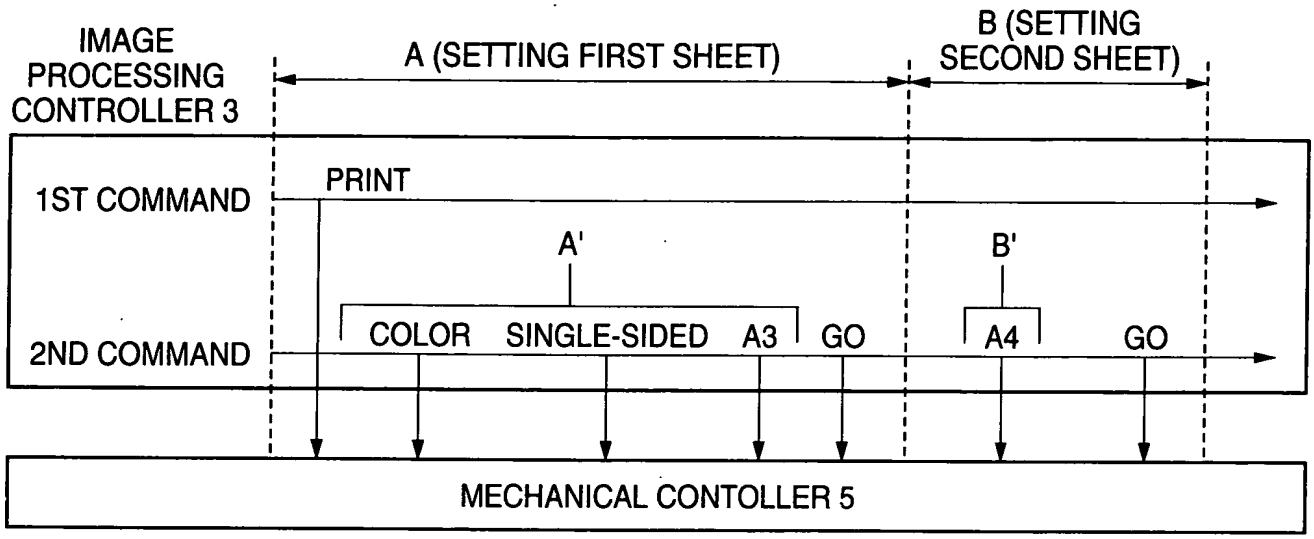
IMAGE PROCESSING CONTROLLER 3
A (SETTING FIRST SHEET)
B (SETTING SECOND SHEET)
1ST COMMAND
PRINT
A'
B'
2ND COMMAND
COLOR
SINGLE-SIDED
A3
GO
A4
GO
MECHANICAL CONTOLLER 5

FIG. 6

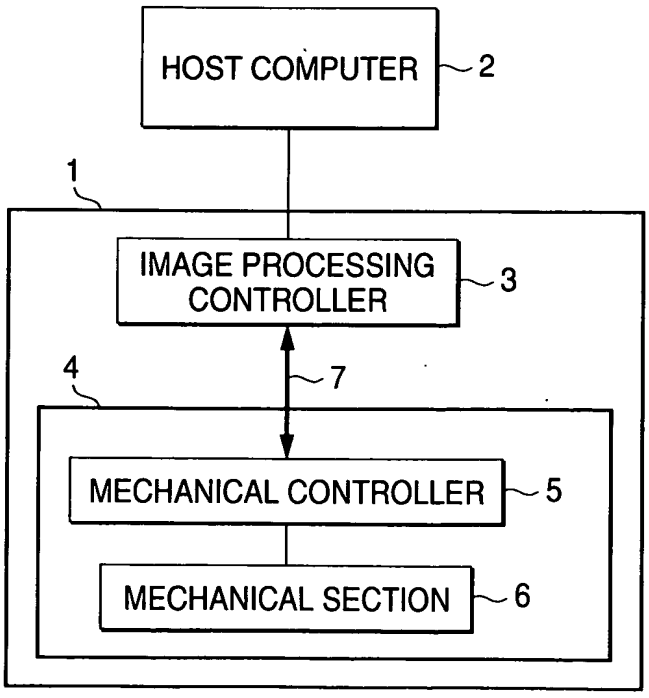
HOST COMPUTER
2
1
IMAGE PROCESSING CONTROLLER
3
4
7
MECHANICAL CONTROLLER
5
MECHANICAL SECTION
6

FIG. 7

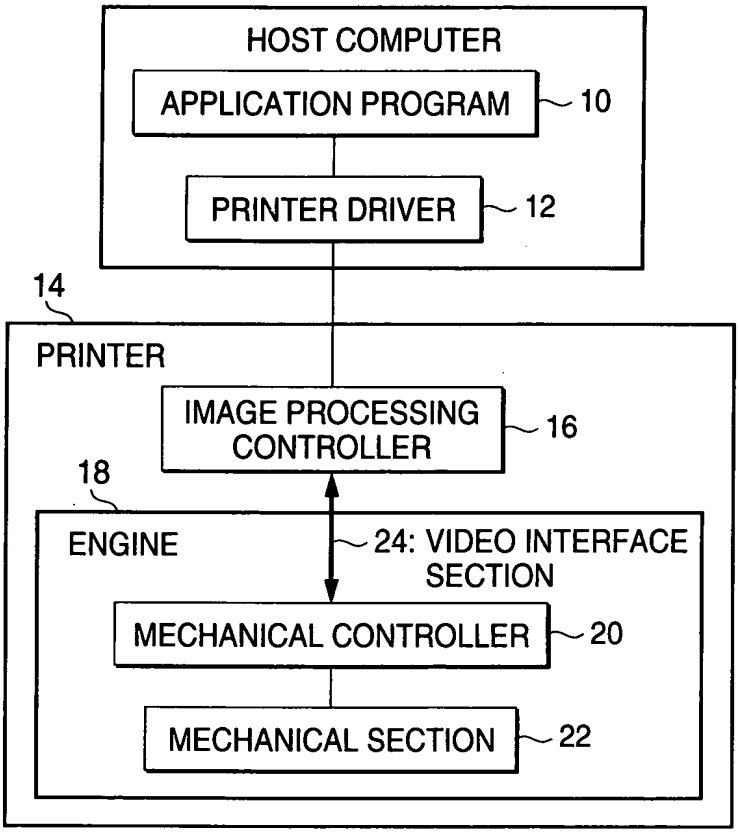
HOST COMPUTER
APPLICATION PROGRAM
10
PRINTER DRIVER
12
14
PRINTER
IMAGE PROCESSING CONTROLLER
16
18
ENGINE
24: VIDEO INTERFACE SECTION
MECHANICAL CONTROLLER
20
MECHANICAL SECTION
22

FIG. 8

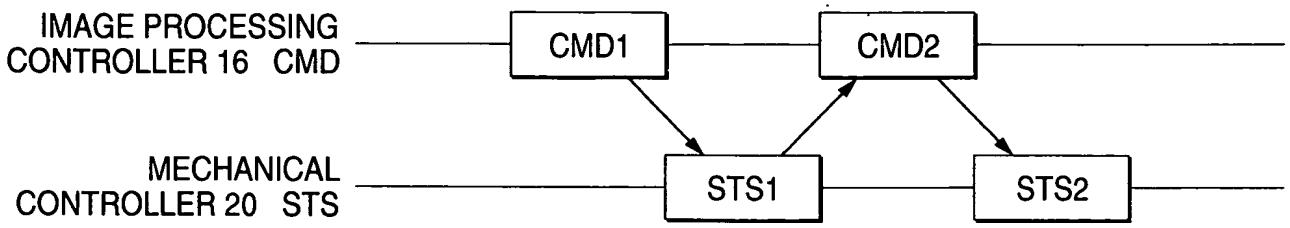
IMAGE PROCESSING CONTROLLER 16 CMD
CMD1
CMD2
MECHANICAL CONTROLLER 20 STS
STS1
STS2

FIG. 9

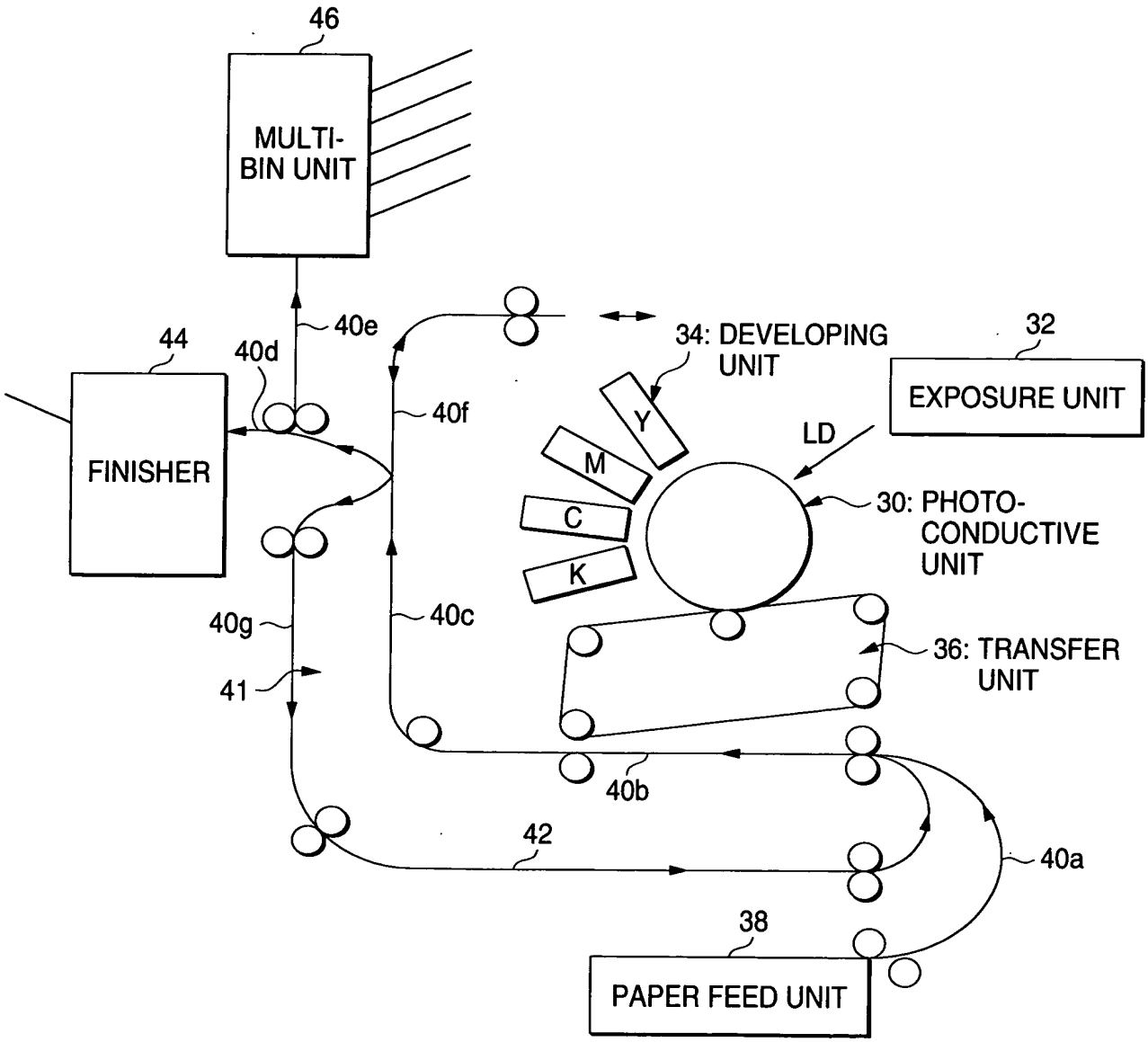
46
MULTI-
BIN UNIT
44
40d
40e
40f
FINISHER
34: DEVELOPING
UNIT
32
EXPOSURE UNIT
Y
M
C
K
LD
30: PHOTO-
CONDUCTIVE
UNIT
40g
40c
41
36: TRANSFER
UNIT
40b
42
40a
38
PAPER FEED UNIT

FIG. 10

PRINT MODE	NUMBER OF PRINTABLE SHEETS IN MINIMUM PRINT CYCLE		
	ONE SHEET /CYCLE	TWO SHEETS /CYCLE	THREE SHEETS /CYCLE
(1) SINGLE-SIDED/COLOR/ SHORT PAPER	○	○	
(2) SINGLE-SIDED/COLOR/ LONG PAPER	○		
(3) SINGLE-SIDED/MONOCHROME/ SHORT PAPER	○	○	
(4) SINGLE-SIDED/MONOCHROME/ LONG PAPER	○		
(5) DOUBLE-SIDED/COLOR/ SHORT PAPER	○	○	
(6) DOUBLE-SIDED/COLOR/ LONG PAPER	○		
(7) DOUBLE-SIDED/MONOCHROME/ SHORT PAPER	○	○	○
(8) DOUBLE-SIDED/MONOCHROME/ LONG PAPER	○		

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FIG. 11A

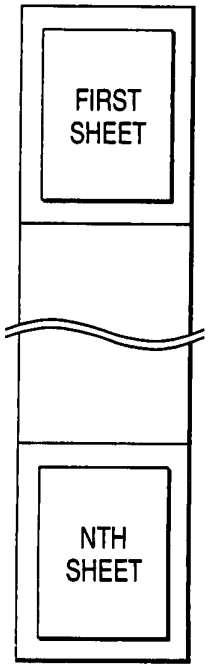


FIG. 11B

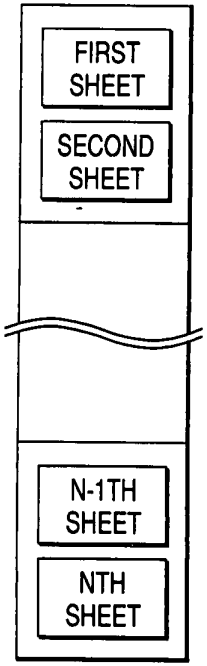


FIG. 11C

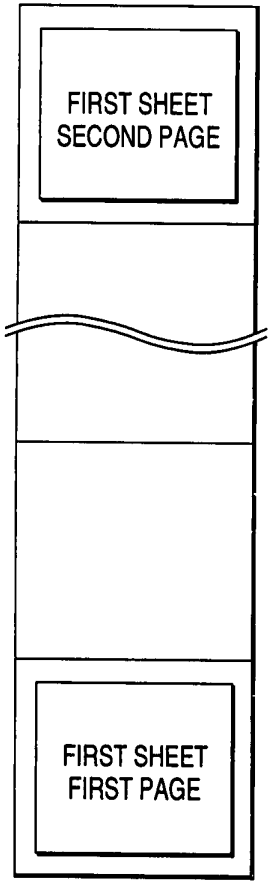


FIG. 11D

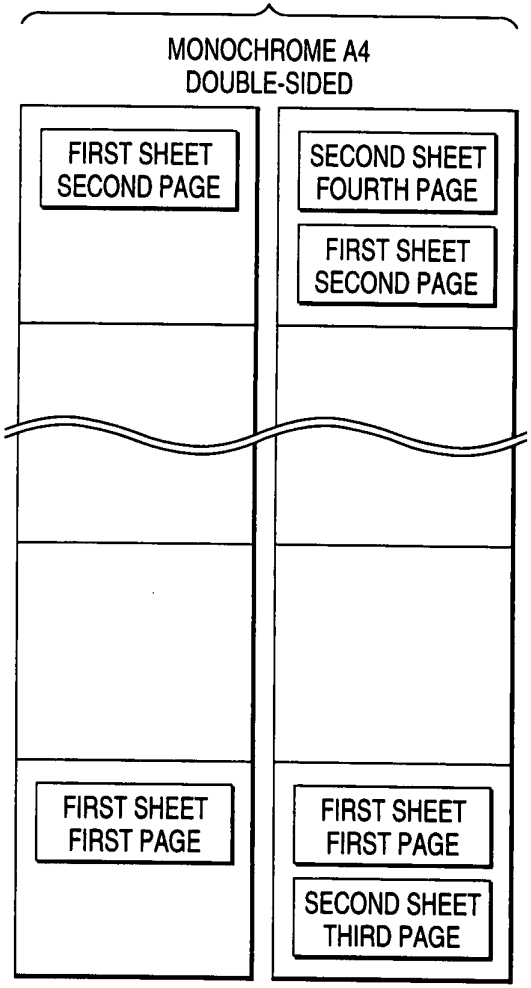
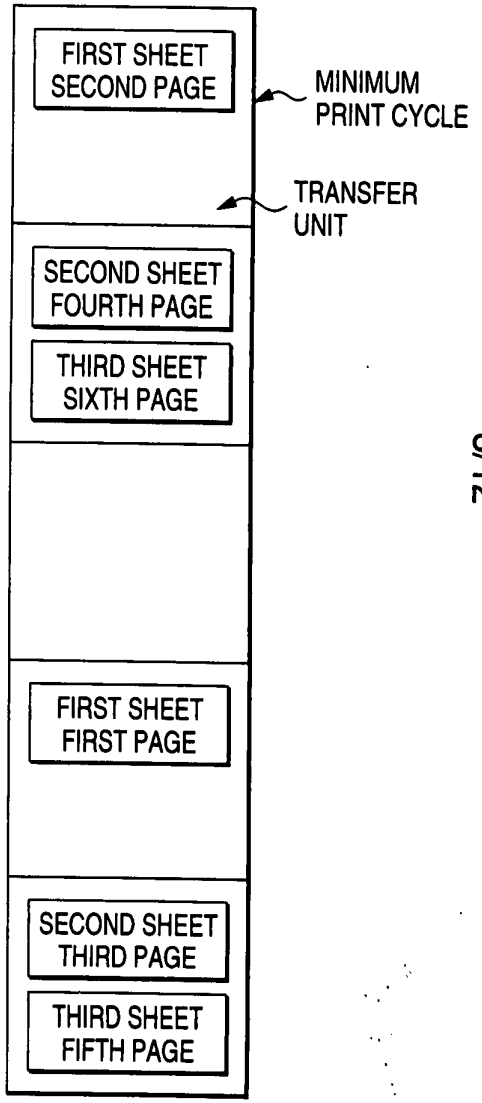


FIG. 11E



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INV: Takatoshi SUGITA
DOCKET # 209852US-2
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FIG. 12

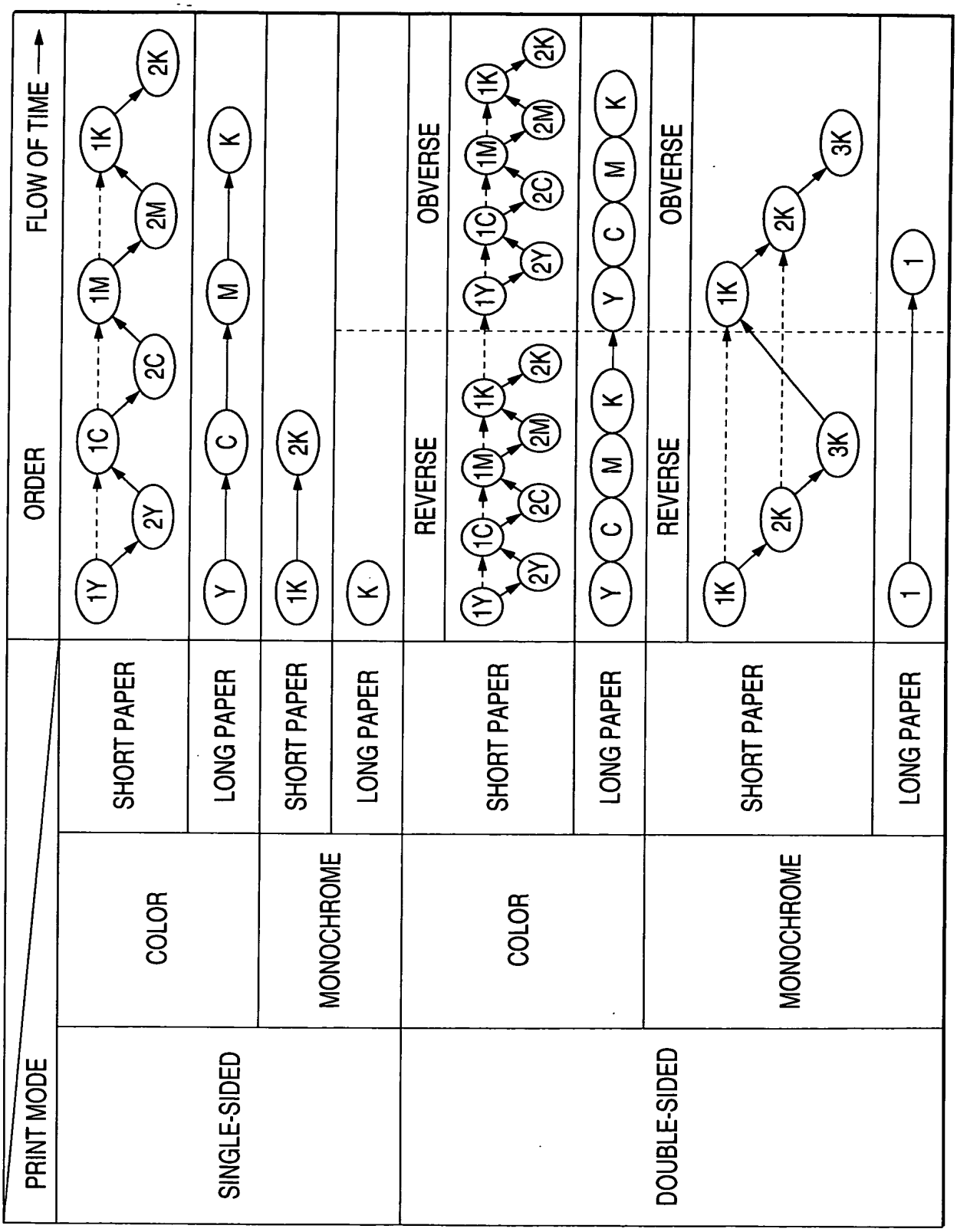

PRINT MODE
ORDER
FLOW OF TIME
SINGLE-SIDED
COLOR
SHORT PAPER
1Y
2Y
1C
2C
1M
2M
1K
2K
LONG PAPER
Y
C
M
K
MONOCHROME
SHORT PAPER
1K
2K
LONG PAPER
K
DOUBLE-SIDED
COLOR
REVERSE
OBVERSE
SHORT PAPER
LONG PAPER
MONOCHROME
SHORT PAPER
LONG PAPER
1
3K

FIG. 13

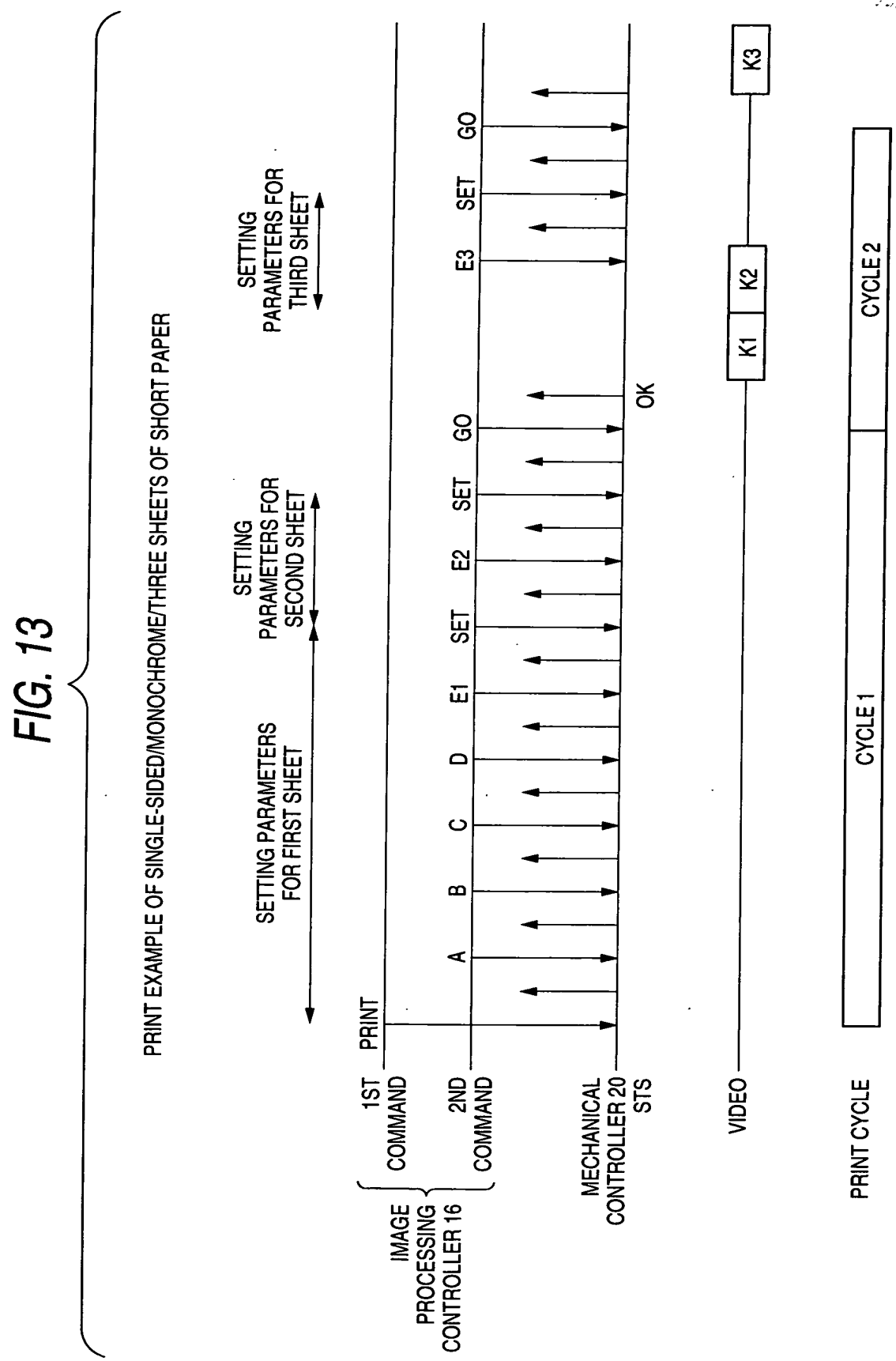

PRINT EXAMPLE OF SINGLE-SIDED/MONOCHROME/THREE SHEETS OF SHORT PAPER
SETTING PARAMETERS FOR FIRST SHEET
SETTING PARAMETERS FOR SECOND SHEET
SETTING PARAMETERS FOR THIRD SHEET
IMAGE PROCESSING CONTROLLER 16
1ST COMMAND
2ND COMMAND
MECHANICAL CONTROLLER 20
PRINT
STS
A
B
C
D
E1
SET
E2
SET
GO
E3
SET
GO
OK
VIDEO
K1
K2
K3
PRINT CYCLE
CYCLE 1
CYCLE 2

FIG. 14

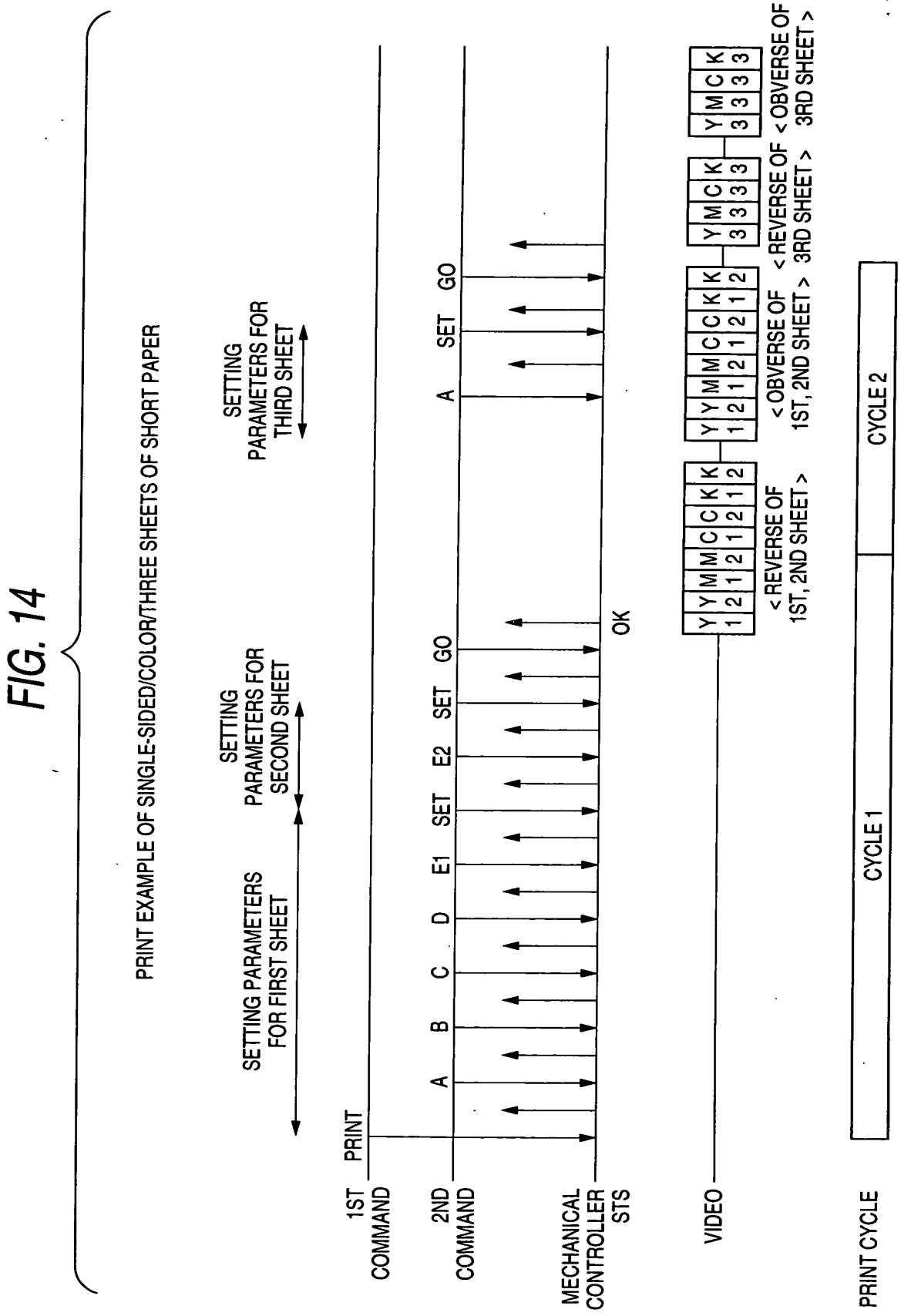
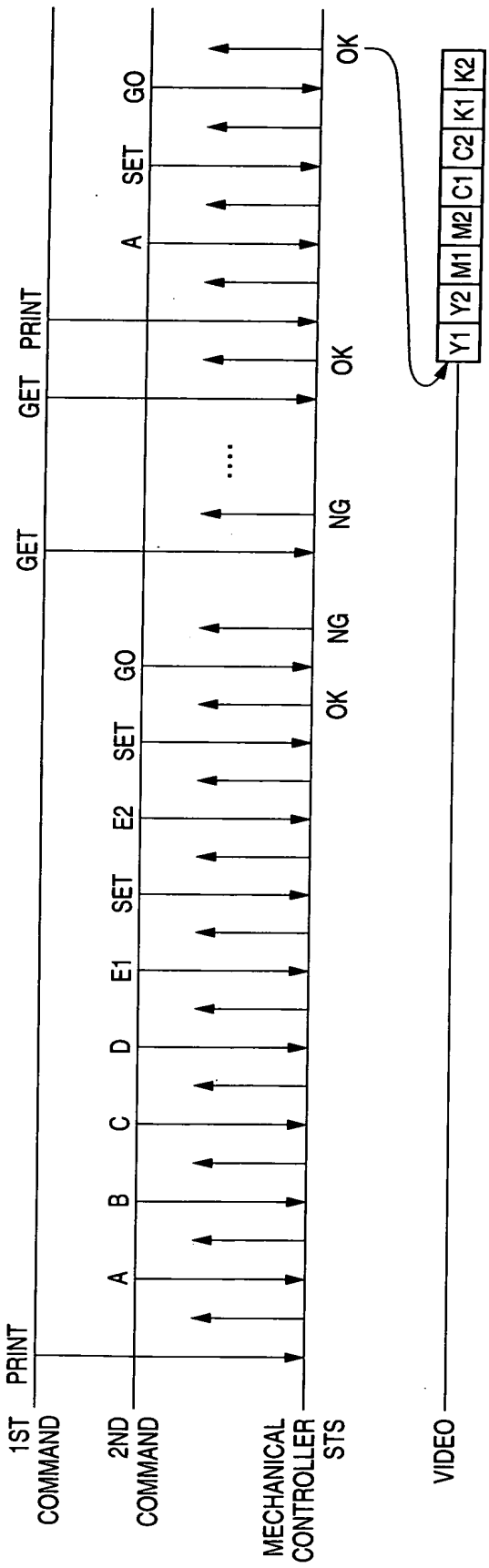

PRINT EXAMPLE OF SINGLE-SIDED/COLOR/THREE SHEETS OF SHORT PAPER
SETTING PARAMETERS FOR FIRST SHEET
SETTING PARAMETERS FOR SECOND SHEET
SETTING PARAMETERS FOR THIRD SHEET
1ST COMMAND
PRINT
2ND COMMAND
A B C D E1 SET E2 SET GO
A SET GO
MECHANICAL CONTROLLER STS
OK
VIDEO
Y Y M M C C K K
1 2 1 2 1 2 1 2
< REVERSE OF 1ST, 2ND SHEET >
< OBVERSE OF 1ST, 2ND SHEET >
Y M C K
3 3 3 3
< REVERSE OF 3RD SHEET >
< OBVERSE OF 3RD SHEET >
PRINT CYCLE
CYCLE 1
CYCLE 2

FIG. 15

PRINT EXAMPLE WHEN ERROR OCCURS (SINGLE-SIDED/COLOR/TWO SHEETS OF SHORT PAPER)